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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,573	11/14/2005	Rodney Hugh Densham	282535US8XPCT	3803
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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
ALBERTALLI, BRIAN LOUIS				
ART UNIT		PAPER NUMBER		
2626				
NOTIFICATION DATE		DELIVERY MODE		
07/06/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/526,573

Applicant(s)

DENSHAM ET AL.

Examiner

BRIAN L. ALBERTALLI

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-90,92-96,99 and 104-108 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,5-73,86-90,92-96,99 and 104-108 is/are allowed.
- 6) ☒ Claim(s) 74-85 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Initially, it is noted that claims 1, 2, 5-73, 86-90, 92-96, and 104-108 were previously indicated as allowable. In addition, claim 99 is now allowable.

The only claims that stand rejected at this time, therefore, are claims 74-85. Applicant's arguments with respect to claims 74-85 have been fully considered, but they are not persuasive.

2. Claim 74 is directed to a non-transitory recording medium. This meets the requirements of 35 U.S.C. 101 as a non-transitory recording medium is considered statutory subject matter (regardless of the information contained on the recording medium). A claim to a non-transitory, tangible computer readable storage medium *per se* that possesses structural limitations under the broadest reasonable interpretation standard to qualify as a manufacture is patent-eligible subject matter. Adding additional claim limitations to the medium, such as executable instructions or stored data, to such a statutory eligible claim does not render the medium non-statutory, so long as the claim as a whole has a real world use and the medium does not cover substantially all practical uses of a judicial exception. The claim as a whole remains a tangible embodiment and qualifies as a manufacture.

However, a tangible medium including a computer program should be evaluated to determine if there is a functional relationship between the computer program and the medium for purposes of distinguishing over prior art.

In this case, claim 74 includes "computer readable instructions and data thereon". Notably, there is no further recitation of the "computer readable instructions". Claim 74 further defines a "predetermined data structure" which includes a combination of a compressed and subsequently encrypted first digital audio signal and an unencrypted second audio signal where the first digital audio signal occurs as noise in the combination. In addition, the first audio signal is embedded as noise in the second digital audio signal after being compressed and encrypted.

The non-transitory recording medium of claim 74 therefore contains "computer readable instructions" (which are not defined as capable of performing any functions) and a combined digital audio signal. Applicant argues that the "noise" embedded in the digital audio signal relates to computer software and hardware components because "it is computer software and hardware components that read the data and perceive the first signal as being noise" (see page 25 of Applicant's response). However, computer software and hardware components cannot read a noise signal *without the necessary computer instructions to instruct a computer how to process the noise*. The noise itself cannot be read by the computer without additional computer instructions instructing the computer how to perceive the digital signal. To qualify as a statutory data structure, the data structure must "define structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structures functionality to be realized". Since the noise itself cannot instruct the computer to how perceive the noise (and allow its functionality realized), the noise (and the audio signal), therefore, is non-functional.

It is also noteworthy that claim 74 defines a digital audio signal that has been "compressed" and "encrypted" (past tense). This indicates that any processing or functionality has occurred prior to the signal being stored on the medium (and is not implementable by the medium itself). Similarly, the recitation that the first audio signal "is embedded as noise in the second audio signal" does not indicate the recording medium can *cause* the first audio signal to be embedded as noise in the second audio signal (and thus impart functionality). Rather, claim 74 defines a previously compressed and encrypted combined audio signal stored on a recording medium.

Claims 74-85 therefore define a non-transitory recording medium storing what amounts to non-functional descriptive material. There is no requirement to afford non-functional descriptive material patentable weight absent a new and unobvious *functional* relationship between the descriptive material and the substrate (MPEP 2106.01). As such, claims 74-85 remain rejected as being anticipated by Tanaka.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 74-85 are rejected under 35 U.S.C. 102(e) as being anticipated by Tanaka (U.S. Patent Application Publication 2002/0108043).

Claims 74-85 are directed to a recording medium storing data, the data comprising a first audio signal and second audio signal, where the first audio signal is embedded as noise in the second audio signal. An audio signal stored on a recording medium constitutes non-functional descriptive material, because an audio signal, compressed or otherwise, does not provide the necessary functional and structural interrelationships that would allow the recording medium to instruct a machine to perform functions. Since claims 74-85 are directed to non-functional descriptive material, the only difference between the claimed product (the recording medium) and those disclosed by Tanaka (Fig. 1, 113-116) is the content of the non-functional descriptive material. Where the only difference between a prior art product and a claimed product is printed matter that is not functionally related to the product, the content of the printed matter will not distinguish the claimed product from the prior art. *In re Ngai*, 367 F.3d 1336, 1339, 70 USPQ2d 1862, 1864 (Fed. Cir. 2004). See also *In re Gulack*, 703 F.2d 1381, 1385-86, 217 USPQ 401, 404 (Fed. Cir. 1983).

Allowable Subject Matter

5. Claims 1, 2, 5-73, 86-90, 92-96, and 99, and 104-108 are allowed.

The following is an examiner's statement of reasons for allowance:

With respect to claims 1, 2, and 5-58, Tanaka and the additional prior art of record do not disclose or suggest compressing and encrypting a digital audio signal to

create a first audio signal, where the audio information in the first audio signal is substantially unimpaired compared to that of the digital audio signal, then embedding the first audio signal as noise into an unencrypted second audio signal. Tanaka combines encrypted audio data and unencrypted audio data as a stream of sequential audio data. However, there is no teaching or suggestion in Tanaka to embed a first compressed and encrypted audio signal as noise into a second audio signal. Additionally, the steps of embedding the first audio signal as noise into the second audio signal would inherently require a particular machine or apparatus to implement the steps, and further, the steps are central to the purpose of the invention.

Claims 95 and 96 require systems with components that implement the method of claim 1. Thus, claims 95, 96, and 104 are allowed for the same reasons as claim 1.

With respect to claims 59-73, similarly to claim 1, claim 59 requires an apparatus that compresses and encrypts a digital audio signal to create a first audio signal, where the audio information in the first audio signal is substantially unimpaired compared to that of the digital audio signal, then embedding the first audio signal as noise into an unencrypted second audio signal.

With respect to claims 86-90 and 92-94, Tanaka does not disclose or suggest separating a first audio signal from a combined first audio signal and second signal, where the first audio signal is a compressed and encrypted audio signal that is embedded as noise in the second signal. Additionally, the steps of separating the first audio signal from the combination, where the first audio signal was embedded as noise

in the second signal would inherently require a particular machine or apparatus to implement the steps, and further, the steps are central to the purpose of the invention.

With respect to claims 99 and 105-108, Lee et al. and the additional prior art of record do not disclose or suggest scaling a value A of N samples as required by the limitations of claim 99.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRIAN L. ALBERTALLI whose telephone number is (571)272-7616. The examiner can normally be reached on Monday-Thursday, 8 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BLA 6/30/10
/Brian L Albertalli/
Primary Examiner, Art Unit 2626